



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,583	07/11/2002	Joyce S. Plested	11560-003US1	2536
49443	7590	03/14/2006	EXAMINER	
PEARL COHEN ZEDEK, LLP 1500 BROADWAY 12TH FLOOR NEW YORK, NY 10036			DEVI, SARVAMANGALA J N	
			ART UNIT	PAPER NUMBER
			1645	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/089,583

Applicant(s)

PLESTED ET AL.

Examiner

S. Devi, Ph.D.

Art Unit

1645

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 01 March 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): See Attachment.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: None.
Claim(s) objected to: None.
Claim(s) rejected: 48, 49, 55 and 56.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____.
13. ☒ Other: Attachment.

SD 03/08/06
S. DEVI, PH.D.
PRIMARY EXAMINER

ATTACHMENT TO ADVISORY ACTION

Applicants' Amendment

- 1) Acknowledgment is made of Applicants' after-final amendment filed 03/01/06 in response to the final Office Action mailed 11/02/05. The amendment has been entered.

Status of Claims

- 2) Claims 50-53 and 57-60 have been canceled via the amendment filed 03/01/06.
Claims 48 and 55 have been amended via the amendment filed 03/01/06.
Claims 48, 49, 55 and 56 are pending and are under examination.

Prior Citation of Title 35 Sections

- 3) The text of those sections of Title 35 U.S. Code not included in this action can be found in a prior Office Action.

Prior Citation of References

- 4) The references cited or used as prior art in support of one or more rejections in the instant Office Action and not included on an attached form PTO-892 or form PTO-1449 have been previously cited and made of record.

Rejection(s) Moot

- 5) The rejection of claims 50-53 and 57-60 made in paragraph 11 of the Office Action mailed 11/02/05 under 35 U.S.C § 112, first paragraph, as containing new subject matter, is moot in light of Applicants' cancellation of the claims.
- 6) The rejection of claims 50, 51 and 52 made in paragraphs 12(c) and 12(d) of the Office Action mailed 11/02/05 under 35 U.S.C § 112, second paragraph, as being indefinite, is moot in light of Applicants' cancellation of the claims.
- 7) The rejection of claim 53 made in paragraph 12(e) of the Office Action mailed 11/02/05 under 35 U.S.C § 112, second paragraph, as being indefinite, is moot in light of Applicants' cancellation of the claim.
- 8) The rejection of claims 57, 58 and 59 made in paragraphs 12(f) and 12(g) of the Office Action mailed 11/02/05 under 35 U.S.C § 112, second paragraph, as being indefinite, is moot in light of Applicants' cancellation of the claims.

9) The rejection of claim 60 made in paragraphs 12(h) and 12(i) of the Office Action mailed 11/02/05 under 35 U.S.C § 112, second paragraph, as being indefinite, is moot in light of Applicants' cancellation of the claim.

10) The rejection of claims 49-53 and 56-60 made in paragraph 12(j) of the Office Action mailed 11/02/05 under 35 U.S.C § 112, second paragraph, as being indefinite, is moot in light of Applicants' cancellation of the claims.

11) The rejection of claims 50-53 and 57-60 made in paragraph 13 of the Office Action mailed 11/02/05 under 35 U.S.C § 102(b) as being anticipated by Plested *et al.* (*Infect. Immun.* 67: 5417-5426, October 1999, already of record), is moot in light of Applicants' cancellation of the claims.

Rejection(s) Withdrawn

12) The rejection of claim 48 made in paragraph 12(a) of the Office Action mailed 11/02/05 under 35 U.S.C § 112, second paragraph, as being indefinite, is withdrawn in light of Applicants' amendment to the claim.

13) The rejection of claim 55 made in paragraph 12(b) of the Office Action mailed 11/02/05 under 35 U.S.C § 112, second paragraph, as being indefinite, is withdrawn in light of Applicants' amendment to the claim.

14) The rejection of claim 55 made in paragraph 12(i) of the Office Action mailed 11/02/05 under 35 U.S.C § 112, second paragraph, as being indefinite, is withdrawn in light of Applicants' cancellation of claim 60.

15) The rejection of claims 48 and 55 made in paragraph 11 of the Office Action mailed 11/02/05 under 35 U.S.C § 112, first paragraph, as containing new subject matter, is withdrawn in light of Applicants' amendment to the claims relevant to the limitations: 'a plurality of *Neisseria meningitidis* immunotypes', and 'said *Neisseria meningitidis* immunotypes selected from the group consisting of L1, L3, L7, L8, L9, L10, L11 and L12'.

Rejection(s) Maintained

16) The rejection of claims 48, 49 55 and 56 made in paragraph 11 of the Office Action mailed 11/02/05 under 35 U.S.C § 112, first paragraph, as containing new subject matter with regard to the method that includes the administration of an immunogenic composition which comprises an inner

core of the broadly recited 'a *Neisseria* LPS' having a phosphoethanolamine moiety linked to position 3 of a HepII moiety of the inner core of said *Neisseria* LPS, is maintained for reasons set forth therein and herebelow.

Applicants submit that MAb B5 was used in the experiments of the subject application merely as a tool to define the conserved epitope of the present invention, and that elicitation of MAb B5 'is not an integral part of the methods demonstrated in the subject specification', but rather any antibody elicited by the conserved epitope will recognize other all *Neisseria* strains containing the conserved epitope. Yet, Applicants acknowledge the fact that B5 is the only antibody that has the recited specificity by stating that B5 antibody reactivity was tested with multiple strains of *Neisseria meningitidis* and that the antibody recognized 70% of meningococcal strains with PEtN on the 3 position of the Hep2 (L1, L3, L7, L8, L9, L10, L11, or L12). Applicants contend that the B5 reactivity experiments were not limited to *Neisseria meningitidis* but utilized several other *Neisseria* species, and that B5 epitope is present and accessible in a wide variety of meningococcal and non-meningococcal *Neisseria* strains, both capsule-deficient and fully encapsulated. Applicants point to pages 51, 58 and 59 of the specification and state that accessibility of the epitope was further confirmed by immunofluorescence studies. Applicants point to page 29 and state that this part of the specification discloses the structural analysis of the conserved epitope using LPS mutants, ELISA, and electrospray ionization mass spectrometry. Applicants state that NM immunotypes L1, L3, L7, L8, L9, L10, L11 and L12 contain PEtN linked to position 3 of Hep2. Applicants submit the teachings on RSV from the Chargelegue reference. Applicants conclude that: (a) A person skilled in the art would have known that the presence of the conserved epitope recited in the subject claims in an immunogenic composition would be sufficient to elicit antibodies that recognize *Neisseria meningitidis* immunotypes recited in the subject claims, (b) A person of average skill in the art would have reasonable expectation that any *Neisseria* strain having a PEtN moiety linked to position 3 of HepII of the inner core LPS can be used to elicit antibodies that recognize NM immunotypes L1, L3, L7, L8, L9, L10, L11 and L12, as recited in the subject claim; and (c) The method recited in the subject claims are sufficiently described and enabled by the specification.

Applicants' arguments have been carefully considered, but are not persuasive. First, the pending 35 U.S.C § 112, first paragraph rejection of record is a new matter rejection. No lack of enablement rejections are currently pending in this application. The Chargelegue reference is

unrelated to the inner core of a neisserial LPS and to the specificity of antibodies elicited by the inner core of a neisserial LPS. Secondly, the antigenicity or the epitope recognition with all neisserial strains containing the conserved epitope by B5 antibody is not the issue. Whether or not *Neisseria meningitidis* immunotypes L1, L3, L7, L8, L9, L10, L11 and L12 contain PEtN linked to position 3 of Hep2 and react with B5 is not the issue. Instead, the inner core of the broadly recited 'a *Neisseria* ... LPS' in the recited immunogenic composition that is 'administered' to a host in the claimed method to elicit an antibody that specifically recognizes *Neisseria meningitidis* immunotypes L1, L3, L7, L8, L9, L10, L11 and L12 is the issue.

As amended, the claims are now drawn to a method for eliciting in a host an antibody that recognizes all of *Neisseria meningitidis* immunotypes L1, L3, L7, L8, L9, L10, L11 and L12, or a method of immunizing a host against *Neisseria meningitidis* immunotypes L1, L3, L7, L8, L9, L10, L11 and L12, by administering to said host an immunogenic composition comprising any neisserial LPS, with a phosphoethanolamine moiety linked to position 3 of a HepII moiety of the inner core. However, such a method has no descriptive support in the specification as originally filed. As set forth previously, an immunogenic composition comprising an inner core of any neisserial LPS other than a *galE* mutant meningococcal LPS, wherein a phosphoethanolamine moiety is linked to position 3 of HepII moiety of the inner core, wherein the composition on administration to a host, elicits an antibody that recognizes all of *Neisseria meningitidis* immunotypes L1, L3, L7, L8, L9, L10, L11 and L12, lacks descriptive support. Accordingly, the method of use of such a composition as claimed, lacks descriptive support in the specification, as originally filed. In other words, there is no descriptive support in the specification, as originally filed, for a method of eliciting an antibody in a host as claimed, or for a method of immunizing a host as claimed, which method comprises the step of administering an immunogenic composition comprising an inner core of the broadly recited 'a *Neisseria* ... LPS' (i.e., inclusive of all non-meningococcal *Neisseria* LPS and non-*galE* *Neisseria* LPS), wherein a phosphoethanolamine moiety is linked to position 3 of a HepII moiety of said inner core of said *Neisseria* LPS. The only immunogenic composition that was 'administered' to a host in a method of eliciting an antibody having the recited specificity to all of *Neisseria meningitidis* immunotypes L1, L3, L7, L8, L9, L10, L11 and L12 in a host, contained a meningococcal LPS (as opposed to any neisserial LPS) present in or on formalin-killed whole cells of a *galE* mutant of *Neisseria meningitidis* wherein a phosphoethanolamine moiety is linked to

position 3 of a HepII moiety of the meningococcal LPS inner core. The structural analysis of the conserved epitope provided on page 29 of the specification is limited to the LPS of *galE* meningococcal mutant and is not pertinent to a non-meningococcal *galE* or non- *galE* 'neisserial LPS'. Pages 51, 58 and 59 of the specification describe the reactivity or binding of MAb B5 with *Neisseria meningitidis* strains or the accessibility of inner core LPS epitopes on *Neisseria meningitidis* strains. These pages of the specification do not describe that the immunogenic composition that was 'administered' in the claimed methods contained an inner core LPS from any 'neisserial LPS', including non-meningococcal and non-*galE* 'neisserial LPS'. At the time of filing, Applicants were not in possession of an immunogenic composition that comprised the inner core of any 'neisserial LPS' other than the LPS present on a formalin-killed *galE* mutant of *Neisseria meningitidis*. The rejection stands.

17) The rejection of claims 48, 49, 55 and 56 made in paragraph 13 of the Office Action mailed 11/02/05 under 35 U.S.C § 102(b) as being anticipated by Plested *et al.* (*Infect. Immun.* 67: 5417-5426, October 1999, already of record), is maintained for reasons set forth therein and herebelow.

Applicants submit that they have amended claims 48 and 55 to overcome the new matter rejections and therefore the art rejection should be withdrawn.

Applicants' argument has been carefully considered, but is not persuasive. As set forth *supra* in paragraphs 15 and 16, although Applicants' amendment to claims 48 and 55 overcomes some of the new matter issues, a part of it still remains. See paragraph 16 above. Therefore, the rejection stands.

Remarks

18) Claims 48, 49, 55 and 56 stand rejected.

19) Papers related to this application may be submitted to Group 1600, AU 1645 by facsimile transmission. Papers should be transmitted via the PTO Fax Center which receives transmissions 24 hours a day and 7 days a week. The transmission of such papers by facsimile must conform with the notice published in the Official Gazette, 1096 OG 30, November 15, 1989. The central Fax number for submission of amendments, responses and papers is (571) 273-8300.

20) Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

Serial No. 10/089,583
Art Unit: 1645


applications may be obtained from either Private PAG or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.Mov>. Should you have questions on access to the Private PAA system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

21) Any inquiry concerning this communication or earlier communications from the Examiner should be directed to S. Devi, Ph.D., whose telephone number is (571) 272-0854. The Examiner can normally be reached on Monday to Friday from 7.15 a.m. to 4.15 p.m. except one day each bi-week, which would be disclosed on the Examiner's voice mail system. A message may be left on the Examiner's voice mail system.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Lynette Smith, can be reached on (571) 272-0864.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

March, 2006

 03/08/06
S. DEVI, PH.D.
PRIMARY EXAMINER